



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 052-00027 and 052-00028; NRC-2008-0441]

South Carolina Electric & Gas Company and South Carolina Public Service Authority;

Virgil C. Summer Nuclear Station, Units 2 and 3

Passive Core Cooling System Condensate Return

AGENCY: Nuclear Regulatory Commission.

ACTION: License amendment application; opportunity to comment, request a hearing, and petition for leave to intervene.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment and exemption to Combined Licenses (NPF-93 and NPF-94), issued to South Carolina Electric & Gas Company (SCE&G) and South Carolina Public Service Authority (Santee Cooper) (the licensee); for construction and operation of the Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3, located in Fairfield County, South Carolina.

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Requests for a hearing or petition for leave to intervene must be filed by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2008-0441**. Address questions about NRC dockets to Carol Gallagher;

telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop:

OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Ruth C. Reyes, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-000; telephone: 301-415-3249; e-mail: Ruth.Reyes@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID **NRC-2008-0441** when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2008-0441**.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209,

301-415-4737, or by e-mail to pdr.resource@nrc.gov. The application for amendment, dated November 18, 2016, is available in ADAMS under Accession No. ML16323A335.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID **NRC-2008-0441** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment submissions at <http://www.regulations.gov> as well as entering the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

II. Introduction

The NRC is considering issuance of an amendment to Facility Operating License Nos. NPF-93 and NPF-94, issued to SCE&G and Santee Cooper for operation of the VCSNS, Units 2 and 3, located in Fairfield County, South Carolina.

The proposed changes would revise the Combined Licenses to reflect an increase in the efficiency of the return of condensate utilized by the passive core cooling system to the in-containment refueling water storage tank (IRWST) to support the capability for long-term cooling. Because, this proposed change requires a departure from Tier 1 information in the Westinghouse AP1000 Design Control Document (DCD), the licensee also requested an exemption from the requirements of the Generic DCD Tier 1 in accordance with section 52.63(b)(1) of title 10 of the *Code of Federal Regulations* (10 CFR).

Before any issuance of the proposed license amendment, the NRC will need to make the findings required by the Atomic Energy Act of 1954, as amended (the Act), and NRC's regulations.

The NRC has made a proposed determination that the license amendment request involves no significant hazards consideration. Under the NRC's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed containment condensate flow path changes provide sufficient condensate return flow to maintain In-containment Refueling Water Storage Tank (IRWST) level above the top of the Passive Residual Heat Removal Heat Exchanger (PRHR HX) tubes long enough to prevent PRHR HX performance degradation from that considered in the UFSAR Chapter 15 safety analyses. The added components are seismically qualified and constructed of only those materials appropriately suited for exposure to the reactor coolant environment as described in UFSAR Section 6.1. No aluminum is permitted to be used in the

construction of these components so that they do not contribute to hydrogen production in containment.

The proposed changes clarify the design basis for the PRHR HX, which removes decay heat from the Reactor Coolant System (RCS) during a non-loss-of-coolant accident (non-LOCA). With operator action to avoid unnecessary Automatic Depressurization System (ADS) actuation based on RCS conditions, PRHR HX operation can be extended longer than is maintained automatically by the protection and safety monitoring system. Though analysis shows significantly greater capacity, the extent of capability of the PRHR HX in the licensing basis is changed from operating indefinitely to operating for at least 72 hours. If PRHR HX capability was exhausted after 72 hours, the ADS is actuated, which could result in significant containment floodup. However, the probabilistic analysis shows that the probability of design basis containment floodup after PRHR HX operation during a non-LOCA event is significantly lower than the probability of a small break LOCA, for which comparable containment floodup is anticipated. Therefore, the probability of significant containment floodup is not increased.

The proposed changes do not affect components whose failure could initiate an event, thus the probabilities of the accidents previously evaluated are not affected. The affected equipment does not adversely affect or interact with safety-related equipment or another radioactive material barrier. The proposed changes clarify the post-accident performance requirements for the PRHR HX. However, the proposed changes do not prevent the engineered safety features from performing their safety-related accident mitigating functions. The radioactive material source terms and release paths used in the safety analyses are unchanged, thus the radiological releases in the UFSAR accident analyses are not affected.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The long-term safe shutdown analysis results show that the PRHR HX continues to meet its acceptance criterion, i.e., to cool the Reactor Coolant System (RCS) to below 420°F in 36 hours. The added equipment does not adversely interface with any component whose failure could initiate an accident, or any component that contains radioactive material. The modified components do not incorporate any active features relied upon to support normal operation. The downspout and gutter return components are seismically qualified to remain in place and function during seismic and dynamic events. The containment condensate flow path changes do not create a new fault or sequence of events that could result in a radioactive material release.

The proposed change quantifies the duration that the PRHR HX is capable of maintaining adequate core cooling, and specifies that if the PRHR HX cooling capability is exhausted, the ADS is actuated. This involves the possibility of

opening the ADS valves after the IRWST water level has decreased below the spargers, which promote steam condensation in the IRWST. During this condition, the loads on the IRWST, spargers, and any internal structures or components in the IRWST are still less than their limiting loads, and these SSCs are not adversely affected or cause a different mode of operation. Therefore, no new type of accident could be created by this condition.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed changes do not reduce the redundancy or diversity of any safety-related function. The added components are classified as safety-related, seismically qualified, and are designed to comply with applicable design codes. The proposed containment condensate flow path changes provide sufficient condensate return flow to maintain adequate IRWST water level for those events using the PRHR HX cooling function. The long-term Shutdown Temperature Evaluation results in UFSAR Appendix 19E show the PRHR HX continues to meet its acceptance criterion. The UFSAR Chapters 6 and 15 analyses results are not affected, thus margins to their regulatory acceptance criteria are unchanged. The former design basis, which stated the PRHR HX could bring the plant to 420°F within 36 hours is changed to state the heat exchanger can establish safe, stable conditions in the reactor coolant system after a design basis event. Such safe, stable conditions may not coincide with a core average temperature of 420°F. However, the PRHR HX is able to bring the RCS to a sufficiently low temperature such that RCS conditions are comparable to those achieved at 420°F – peak cladding temperatures and departure from nucleate boiling are maintained within acceptable limits of the evaluation criteria with adequate margin. No safety analysis or design basis acceptance limit/criterion is challenged or exceeded by the proposed changes, thus no margin of safety is reduced.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the license amendment request involves a no significant hazards consideration.

The NRC is seeking public comments on this proposed determination that the license amendment request involves no significant hazards consideration. Any comments received

within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of 60 days after the date of publication of this notice. The Commission may issue the license amendment before expiration of the 60-day notice period if the Commission concludes the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior to the expiration of the 30-day comment period should circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility. Should the Commission take action prior to the expiration of either the comment period or the notice period, the Commission will publish a notice of issuance in the *Federal Register*. Should the Commission make a final No Significant Hazards Consideration Determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.

III. Opportunity to Request a Hearing and Petition for Leave to Intervene

Within 60 days after the date of publication of this notice, any persons (petitioner) whose interest may be affected by this action may file a request for a hearing and a petition to intervene (petition) with respect to the action. Petitions shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2. Interested persons should consult a current copy of 10 CFR 2.309, which is available at the NRC's PDR, located at One White Flint North, Room O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. The NRC's regulations are accessible electronically from the NRC Library on the NRC's Web site at <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. If a petition is filed within 60 days, the Commission or a presiding officer designated by the Commission or by the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel, will rule on the petition;

and the Secretary or the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel will issue a notice of a hearing or an appropriate order.

As required by 10 CFR 2.309, a petition shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements: (1) the name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the petitioner's interest. The petition must also set forth the specific contentions which the petitioner seeks to have litigated at the proceeding.

Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion to support its position on the issue. The petition must include sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the proceeding. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to satisfy these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in

the conduct of the hearing with respect to resolution of that person's admitted contentions consistent with the NRC's regulations, policies, and procedures.

Petitions for leave to intervene must be filed no later than 60 days from the date of publication of this notice. Requests for hearing, petitions for leave to intervene, and motions for leave to file new or amended contentions that are filed after the 60-day deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i) through (iii).

If a hearing is requested, and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of any amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally-recognized Indian Tribe, or agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h)(1).

The petition should state the nature and extent of the petitioner's interest in the proceeding. The petition should be submitted to the Commission by **[INSERT DATE 60 DAYS FROM AFTER OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The petition must be filed in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document, and should meet the requirements for petitions set forth in this section, except that under 10 CFR 2.309(h)(2) a State, local governmental body, or Federally-recognized Indian

Tribe, or agency thereof does not need to address the standing requirements in 10 CFR 2.309(d) if the facility is located within its boundaries. A State, local governmental body, Federally-recognized Indian Tribe, or agency thereof may also have the opportunity to participate under 10 CFR 2.315(c).

If a hearing is granted, any person who does not wish, or is not qualified, to become a party to the proceeding may, in the discretion of the presiding officer, be permitted to make a limited appearance pursuant to the provisions of 10 CFR 2.315(a). A person making a limited appearance may make an oral or written statement of position on the issues, but may not otherwise participate in the proceeding. A limited appearance may be made at any session of the hearing or at any prehearing conference, subject to the limits and conditions as may be imposed by the presiding officer. Details regarding the opportunity to make a limited appearance will be provided by the presiding officer if such sessions are scheduled.

IV. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene (hereinafter “petition”), and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC’s E-Filing rule (72 FR 49139; August 28, 2007, as amended at 77 FR 46562, August 3, 2012). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at

hearing.docket@nrc.gov, or by telephone at 301-415-1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/getting-started.html>. System requirements for accessing the E-Submittal server are available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/adjudicatory-sub.html>. Participants may attempt to use other software not listed on the Web site, but should note that the NRC's E-Filing system does not support unlisted software, and the NRC Electronic Filing Help Desk will not be able to offer assistance in using unlisted software.

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a petition. Submissions should be in Portable Document Format (PDF). Additional guidance on PDF submissions is available on the NRC's public Web site at <http://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the documents are submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the documents on

those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC Electronic Filing Help Desk through the "Contact Us" link located on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>, by e-mail to MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 7 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, 11555 Rockville Pike, Rockville, Maryland, 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <http://ehd1.nrc.gov/ehd/>, unless excluded pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. However, in some instances, a request to intervene will require including information on local residence in order to demonstrate a proximity assertion of interest in the proceeding. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

For further details with respect to this action, see the application for license amendment dated November 18, 2016.

Attorney for licensee: Ms. Kathryn M. Sutton, Morgan, Lewis & Bockius LLC,
1111 Pennsylvania Avenue, NW, Washington, DC 20004-2514.

NRC Branch Chief: Jennifer Dixon-Herrity

Dated at Rockville, Maryland, this 8th day of December 2016.

For the Nuclear Regulatory Commission.

Jennifer Dixon-Herrity, Chief,
Licensing Branch 4,
Division of New Reactor Licensing,
Office of New Reactors.

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